

Remarks

The Official Action rejected claims 1-31. Claims 1-31 remain pending.
Applicant respectfully requests reconsideration and allowance of the pending claims.

Specification Objection

The Official Action objected to the title of the invention for not being descriptive. Applicant amended the title into 'MEMORY DEVICE HAVING ERROR CHECKING AND CORRECTION'. Applicant respectfully requests reconsideration and withdrawal of the present objection.

Claim Rejections under 35 USC 102

The Official Action rejected claims 1, 2 and 11 under 35 USC 102(e) as being anticipated by Walker et al. (US Patent 6,845,472). Applicant respectfully requests reconsideration and withdrawal of the present rejection.

As is well-established, in order to successfully assert a prima facie case of anticipation, the Office Action must provide a single prior art document that includes every element and limitation of the claim or claims being rejected. Therefore, if even one element or limitation is missing from the cited document, the Office Action has not succeeded in making a prima facie case.

Claim 1 requires **a memory device** comprising: **memory error logic** associated with the interface buffer to **carry out a check for memory errors** within the storage array **during a period of time** in which there are **no transactions carried out by the external memory controller** on the first memory bus that involve the storage array, is unanticipated by Walker et al.

The Office Action appears to rely on lines 46-51 of column 8 to anticipate the memory error logic. However, lines 46-51 of column 8 teach the cleansing procedure may only be run during periods of low system activity, but not a memory device may comprise a memory error logic to check for memory errors.

As depicted in Figure 6 and described in lines 47-49 of column 6, Walker teaches a cleansing logic 70 for implementing the cleansing procedure may reside in each memory controlled device 48a-e of each memory cartridge 42a-e or may reside in the memory subsystem 40. However, neither memory controlled device 48 nor memory subsystem 40 is equivalent to the memory device of the present invention. In contrast to the present invention, Walker teaches away from the present invention.

In Figs. 6 and 7, the cleansing logic 70 resides outside of memory cartridges 42a-e and therefore outside memory 44. Further, as described in lines 19-26 of column 7, Walker teaches the error checking may be performed by a host controller if the error checking functionality is turned off in the memory controlled device 48a-e. Therefore, Walker does not teach that a memory device may comprise a memory error logic to check for memory errors.

Furthermore, although Walker teaches that the cleansing procedure may only be run during periods low system activity (e.g., when the queue in the arbiter does not include READ/WRITE requests from external devices) (lines 46-51 of col. 8), Walker does not teach the cleansing procedure is carried out when there are no requests from the host controller to the memory subsystem.

In fact, the system of Walker carries out a memory error check in response to a cleansing request and/or scrub request from the arbiter 66 of the host controller to the memory subsystem (Fig. 7 and its corresponding descriptions on col. 8 and 9). Therefore, Walker does not teach that the memory error check is carried out during the period of time in which there are no transactions carried out by the external controller on the memory bus to the memory device, as required by the claim 1 of the present invention.

Accordingly, Walker et al. does not teach each and every limitations of claim 1, Walker et al. does not anticipate the invention of claim 1. Each of claims 2 and 11 includes claim 1 as a base claim and therefore are at least allowable for the reasons noted above in regard to claim 1. In light of this, Applicant respectfully requests that the present rejection of claims 2 and 11 be withdrawn.

Claim Rejections under 35 USC 103 (Walker/Vogt)

The Official Action rejected claims 3-10, 12-19 and 21-30 under 35 USC 103(a) as being unpatentable over Walker et al. in view of Vogt et al. (US Patent Application 2004/02600991). Applicant suspects there may be a typo in the publication number 2004/02600991 and assumes the publication number is 2004/0260991.

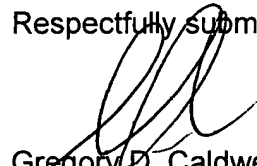
Applicant respectfully submits that the pending application and Vogt were, at the time the invention of the pending application was made, commonly owned by Intel Corporation of Santa Clara, CA (US). Accordingly, Vogt, a 35 U.S.C. 102(e) reference, is disqualified as prior art against the current invention under 35 U.S.C. 103(c). Therefore, Applicant respectfully requests that the present rejections of claims 3-10, 12-19, and 21-30 be withdrawn.

Conclusion

The foregoing is submitted as a full and complete response to the Official Action. Applicant submits that all remaining claims are in condition for allowance. Reconsideration is requested, and allowance of all remaining claims is earnestly solicited.

Should it be determined that an additional fee is due under 37 CFR §§1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #02-2666. If the Examiner believes that there are any informalities which can be corrected by an Examiner's amendment, a telephone call to the undersigned at (503) 439-8778 is respectfully solicited.

Respectfully submitted,



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